

REMARKS / ARGUMENTS

Claims 11, 13-16 and 18-20 remain pending in this application. No claims have been canceled or added.

Priority

Applicants appreciate the Examiner's acknowledgment of the claim for priority and safe receipt of the priority document.

35 U.S.C. §103

Claims 11, 13, 14, 16, 18 and 19 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Fukushima et al (U.S. Patent No. 5,005,088) further considered with JP 07-29650 (actually JP 07-296560) and JP 02-078081. Claims 15 and 20 stand rejected under 35 U.S.C. §103(a) as being unpatentable over the art as applied to the claims as stated above, and further in view of Official Notice. These rejections are traversed as follows.

The claims have been amended to recite that the disk is a "write-once type disk". According to the present invention, intermediate information is produced and recorded on the write-once type disk when the system controller detects a decrease of the residual storage of the battery.

In conventional disk recording systems, each time that recording of data on a disk is suspended or a disk is removed from the recording apparatus to stop recording, the latest intermediate information is produced and recorded. However, a

write-once type disk does not have an overwrite mode for management information as well as image data on the disk and, therefore, new data must be recorded in a new recording area. If this is done each time the disk is suspended or removed from the disk recording apparatus, many instances of the intermediate information would be stored and would cause a decrease in the recording area for new image data while increasing the recording area of the intermediate information.

On the other hand, the write-once type disk has intermediate information produced and recorded when the system controller detects a decrease of the residual storage of the battery. This event occurs far less frequently than when the recording of data is suspended or the disk is removed from the recording apparatus. As such, the number of times the intermediate information needs to be recorded is reduced as compared with conventional disk recording systems.

None of the cited references disclose or suggest these features of the presently claimed invention. As acknowledged by the Examiner, Fukushima et al do not disclose that intermediate information is either produced or recorded onto the disk when power levels are appropriately sensed. In the flow chart of Fig. 3, Fukushima et al disclose that the battery power level is checked, and if it is low, the power supply switch is turned off (see steps S28 and S29).

The deficiencies in Fukushima et al are not overcome by resort to any of the remaining references. JP-07-296560 ("JP '560") discloses a conventional disk recording system in which each time recording data on the disk is interrupted or stopped, Table Of Contents (TOC) information is recorded on the disk after data

recording is completed. However, TOC information is not produced or recorded when a decrease of the residual storage of the battery is detected, contrary to the Examiner's assertion. The Examiner indicates at the bottom of page 3 of the Office Action, that JP '560 discloses "the ability of having a system controller for forming TOC information during interruption of the power supply". Applicants respectfully disagree. Nowhere in JP '560 is it disclosed or suggested that the interruption of power supply is detected or that the decrease of the residual storage of the battery is detected in order to record intermediate information.

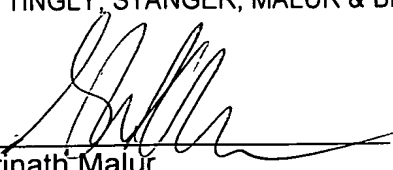
Similarly, JP-02-078081 discloses a conventional disk recording system in which positional information of data is produced and recorded each time the recording of data is interrupted or stopped. As such, it is submitted that the pending claims patentably define the present invention over the cited art.

Conclusion

In view of the foregoing, Applicants respectfully request that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C.

By 
Shrinath Malur
Reg. No. 34,663
(703) 684-1120